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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,916	09/25/2003	Russell B. Reynolds	AER655/02475	6533
24118	7590	03/14/2006	EXAMINER	
HEAD, JOHNSON & KACHIGIAN 228 W 17TH PLACE TULSA, OK 74119			JIMENEZ, MARC QUEMUEL	
			ART UNIT	PAPER NUMBER
			3726	

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/670,916

Applicant(s)

REYNOLDS, RUSSELL B.

Examiner

Marc Jimenez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 3-5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 6-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9-25-03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Species A in the reply filed on 1/12/06 is acknowledged. The traversal is on the ground(s) that all of the claims could be simply and easily considered together. This is not found persuasive because there would be a serious burden in examining all of the species since different prior art would have to each species and each species would entail a different field of search.

The requirement is still deemed proper and is therefore made FINAL.

Drawings

2. Figures 1-5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. **Claims 6-12** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites “said step of building up said selected areas by welding” in line 2 lacks proper antecedent basis.

Claims 7-12 recite “an airplane engine part” in the preambles of each claim. This limitation lacks proper antecedent basis because claim 1 recites “an engine part”.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1, 2 and 7-15** are rejected under 35 U.S.C. 102(b) as being anticipated by Reynolds (US5606797).

Regarding claims 1 and 2, Reynolds teaches a process to restore and refurbish an engine part or accessory (turbo charger exhaust housing) **10**, comprising: visually inspecting the part or accessory for cracks, erosion, or broken areas (col. 3, lines 46-49), machining or drilling off selected areas (col. 3, lines 53-63) of the part or accessory, building up selected areas of the part or accessory in excess of finished dimensions (col. 4, lines 11-14), and machining the selected areas of the part or accessory to their finished dimensions (col. 4, lines 28-31).

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Regarding claims 7-8, note the tubular portion 16 where an opening in the wall is made. The opening is built up and welded 40 (figure 7).

Regarding claim 9, note the flanges 18.

Regarding claims 10 and 15, the part is cleaned with liquid (col. 3, lines 33-34) and blasted with beads (col. 3, lines 39-40).

Regarding claim 11, note the liquid penetrant (col. 3, lines 65-66).

Regarding claim 12, note the preheating (col. 2, lines 18-19).

Regarding claim 13, see figures 2-3 where internal cracks 32 can be seen in a tubular portion. Figure 5 shows an opening is made 36.

Regarding claim 14, figure 1 shows the claimed structural features of the housing.

7. **Claim 1** is rejected under 35 U.S.C. 102(b) as being anticipated by Fraser et al. (US4611744).

Fraser et al. teach a process to restore and refurbish an engine part or accessory 110, comprising: visually inspecting the part or accessory for cracks, erosion, or broken areas 111, machining or drilling off selected areas 113 of the part or accessory 110, building up 118 selected areas of the part or accessory 110 in excess of finished dimensions, and machining (col. 12, lines 10-11) the selected areas of the part or accessory 110 to their finished dimensions (figure 12).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Fraser et al. in view of Applicant's Admitted Prior Art [AAPA] figure 1 and page 2, lines 7-8 of applicant's specification.

Fraser et al. teach the invention cited with the exception of the part being repaired is a turbo charger exhaust housing.

It is well known to a person of ordinary skill in the art, at the time of the invention, that turbo chargers have exhaust housings. For example, as shown in figure 1 of [AAPA], a turbo charger has an exhaust housing. It is also well known in the art, that cracks occur in turbo charger exhaust housings.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have repaired a turbo charger exhaust housing, since turbo charger exhaust housings have cracks due to wear, in order to effectively restore the housing for reuse.

10. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds in view of Waring (US4982066).

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Reynolds teaches the invention cited with the exception of peening the weld with a needle scaler.

Waring teaches peening a weld using a blunt nose chisel powered by an air hammer (col. 6, line 42) which is considered a “needle scaler”.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Reynolds with peening the weld with a needle scaler, in light of the teachings of Waring, in order to strengthen the weld.

11. **Claims 7 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fraser et al. in view of Dupree et al. (US6199746).

Fraser et al. teach the invention cited above including in figure 8 an airplane engine part.

However, it is unclear from figure 8 whether the part is tubular or hollow.

Dupree et al. teach that airplane engine parts such as turbine blades come in the form of a hollow tubular **10**. It is noted that Dupree et al. also teach a repairing processes wherein a hole **22** in the tubular is made.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Fraser et al. with a hollow tubular, in light of the teachings of Dupree et al., in order to refurbish a hollow tubular turbine blade.

12. **Claims 1, 2 and 7-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over [AAPA] in view of Reynolds.

As shown in figures 1-5 of [AAPA], cracks are known to form in such areas as flanges **16**

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and tubular areas 12. [AAPA] does not specifically teach the claimed machining and building up steps claimed.

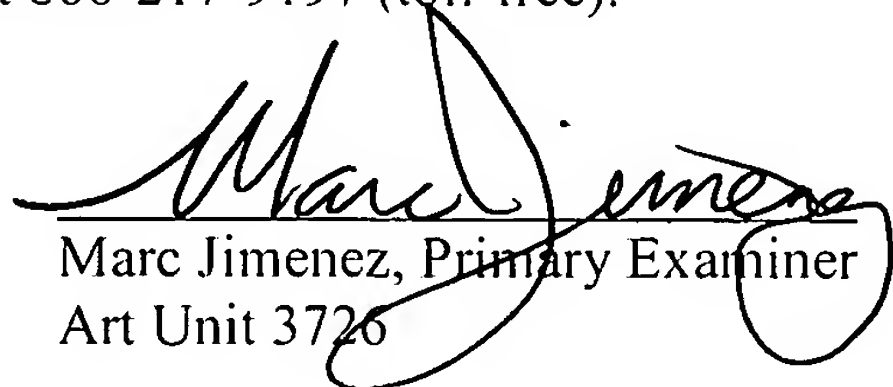
As detailed above, Reynolds clearly teaches each of the claimed features of claims 1, 2 and 7-15.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of [AAPA] with the claimed refurbishing steps as taught by Reynolds, in order to reuse the turbo charger exhaust housing.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is (571) 272-4530. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Nguyen can be reached on (571) 272-4491. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Marc Jimenez, Primary Examiner
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